Abstract

A device and a method are described for bidirectional single-wire data transmission of data information between an electronic control unit 2 and at least one peripheral unit 3 having the following steps:

Applying a predefined constant voltage and/or a predefined constant current to a driver device 20 of the electronic control unit 2 to produce voltage-coded and/or current-coded information; transmitting the voltage-coded and/or current-coded information from the driver device 20 of the electronic control unit 2 to a driver device 30 of the peripheral unit 3 via a single-wire line 4; triggering and powering at least the driver logic of the driver device 30 and/or the communication logic of the peripheral unit 3 through the current flow; current-coding and/or voltage-coding information occurring on the peripheral unit 3 due to the triggering thereof; uploading the current-coded and/or voltage-coded information from the driver device 30 of the peripheral unit 3 to the driver device 20 of the electronic control unit 2 during the triggering of the peripheral unit 3 via the same single-wire line 4.

(Figure 2)